

AMENDMENTS TO THE CLAIMS

Please cancel claims 1 – 7, and 16 – 22. Please add claims 31 –44, as follows.

1 – 7. (Canceled)

8. (Withdrawn) A method of managing locks by a distributed lock management system, the method comprising the steps of:
 a first lock manager on a first node receiving a first request for a first lock on a resource from a first requester;
 wherein said distributed lock management system includes said first lock manager; determining that said first request may not be granted because of a blocking condition;
 said first lock manager storing in a data structure first data that may be used by said first requester to obtain notification that said blocking condition should no longer cause denial of a request for a lock on said resource; and
 said first lock manager transmitting to said first requester a first response that: indicates that said first request is denied, and includes a copy of said first data.

9. (Withdrawn) The method of claim 8, wherein the steps include:
 receiving a message that indicates that said blocking condition should no longer cause denial of a request for a lock on said resource; and
 modifying said data structure to indicate that said blocking condition should no longer cause denial of a request for a lock on said resource.

10. (Withdrawn) The method of claim 9, wherein the step of receiving said message includes receiving said message from said first requester.

1 11. (Withdrawn) The method of claim 8, wherein:
2 the steps further include said first lock manager transmitting to another lock manager
3 of said distributed lock management system a message requesting said first
4 lock on said resource; and
5 wherein the step of determining is based on a second response received from said
6 other lock manager indicating that said first request cannot be granted;
7 wherein said second response includes a copy of said first data.

1 12. (Withdrawn) The method of claim 8, wherein the steps further include:
2 receiving a second request for another lock on said resource;
3 determining, based on said first data, that said second request may not be granted;
4 said first lock manager transmitting to said second requester another response that:
5 indicates that said second request is not granted, and
6 includes a copy of said first data.

1 13. (Withdrawn) The method of claim 12, wherein:
2 said first lock manager is a master of said resource; and
3 wherein the step of receiving said second request includes receiving said second
4 request from another lock manager.

1 14. (Withdrawn) The method of claim 12, wherein:
2 said first lock manager and a process are on a node, wherein said process is different
3 than said first requester; and
4 the step of receiving said second request includes receiving said second request from
5 said process.

1 15. (Withdrawn) The method of claim 8, wherein:

2 said distributed lock management system includes a master for said resource; and
3 wherein no lock is currently granted for said resource by said master.

1 16- 22. (Canceled)

1 23. (Withdrawn) A computer-readable medium carrying one or more sequences of

2 instructions for managing locks by a distributed lock management system, wherein
3 execution of the one or more sequences of instructions by one or more processors
4 causes the one or more processors to perform the steps of:

5 a first lock manager on a first node receiving a first request for a first lock on a
6 resource from a first requester;

7 wherein said distributed lock management system includes said first lock manager;
8 determining that said first request may not be granted because of a blocking
9 condition;

10 said first lock manager storing in a data structure first data that may be used by said
11 first requester to obtain notification that said blocking condition should no
12 longer cause denial of a request for a lock on said resource; and

13 said first lock manager transmitting to said first requester a first response that:

14 indicates that said first request is denied, and

15 includes a copy of said first data.

1 24. (Withdrawn) The computer-readable medium of claim 23, wherein the steps include:

2 receiving a message that indicates that said blocking condition should no longer cause
3 denial of a request for a lock on said resource; and

4 modifying said data structure to indicate that said blocking condition should no longer
5 cause denial of a request for a lock on said resource.

- 1 25. (Withdrawn) The computer-readable medium of claim 24, wherein the step of
2 receiving said message includes receiving said message from said first requester.
- 1 26. (Withdrawn) The computer-readable medium of claim 23, wherein:
2 the steps further include said first lock manager transmitting to another lock manager
3 of said distributed lock management system a message requesting said first
4 lock on said resource; and
5 wherein the step of determining is based on a second response received from said
6 other lock manager indicating that said first request cannot be granted;
7 wherein said second response includes a copy of said first data.
- 1 27. (Withdrawn) The computer-readable medium of claim 23, wherein the steps further
2 include:
3 receiving a second request for another lock on said resource;
4 determining, based on said first data, that said second request may not be granted;
5 said first lock manager transmitting to said second requester another response that:
6 indicates that said second request is not granted, and
7 includes a copy of said first data.
- 1 28. (Withdrawn) The computer-readable medium of claim 27, wherein:
2 said first lock manager is a master of said resource; and
3 wherein the step of receiving said second request includes receiving said second
4 request from another lock manager.

1 29. (Withdrawn) The computer-readable medium of claim 27, wherein:
2 said first lock manager and a process are on a node, wherein said process is different
3 than said first requester; and
4 the step of receiving said second request includes receiving said second request from
5 said process.

1 30. (Withdrawn) The computer-readable medium of claim 23, wherein:
2 said distributed lock management system includes a master for said resource; and
3 wherein no lock is currently granted for said resource by said master.

1 31. (New) A method, the method comprising the steps of:
2 a requester transmitting to a lock management system a request for a certain lock on a
3 first resource;
4 receiving a response from said lock management system that denies said request for a
5 certain lock on said first resource;
6 wherein said response that denies said request for a certain lock on said first resource
7 is caused by a blocking condition;
8 wherein said response includes data that identifies a second resource different than
9 said first resource;
10 wherein said lock management system does not grant a lock on said second resource
11 to said requester while said blocking condition is in effect; and
12 said requester determining said blocking condition is no longer in effect by
13 performing certain steps that include:
14 said requester transmitting to said lock management system a request for a
15 lock on said second resource; and
16 said requester receiving from said lock management system a response that
17 grants said request for said lock on said second resource.

- 1 32. (New) The method of claim 31, wherein said second resource is a transaction and said
2 first resource is a resource locked for said transaction.
- 1 33. (New) The method of claim 32, wherein said data that identifies a second resource
2 includes a transaction id identifying said transaction.
- 1 34. (New) The method of claim 31, wherein:
2 said first resource is a data block; and
3 said blocking condition is based on said data block undergoing a block-split
4 operation.
- 1 35. (New) The method of claim 34, wherein said data block is marked to indicate the data
2 block is undergoing said block split operation.
- 1 36. (New) The method of claim 31, further including in response to determining when
2 said blocking condition no longer prevents said lock management system from
3 granting a lock on said first resource, said first requester informing said lock
4 management system that said blocking condition is no longer in effect.
- 1 37. (New) The method of claim 31, said first requester informing said lock management
2 system that said blocking condition is no longer effect by making another request for
3 a lock of said first resource, said request including data specifying that said blocking
4 condition is no longer effect.
- 1 38. (New) A computer-readable medium carrying one or more sequences of instructions,
2 wherein execution of the one or more sequences of instructions by one or more
3 processors causes the one or more processors to perform the steps of:
4 a requester transmitting to a lock management system a request for a certain lock on a
5 first resource;

6 receiving a response from said lock management system that denies said request for a
 7 certain lock on said first resource;
 8 wherein said response that denies said request for a certain lock on said first resource
 9 is caused by a blocking condition;
 10 wherein said response includes data that identifies a second resource different than
 11 said first resource;
 12 wherein said lock management system does not grant a lock on said second resource
 13 to said requester while said blocking condition is in effect; and
 14 said requester determining said blocking condition is no longer in effect by
 15 performing certain steps that include:
 16 said requester transmitting to said lock management system a request for a
 17 lock on said second resource; and
 18 said requester receiving from said lock management system a response that
 19 grants said request for said lock on said second resource.

1 39. (New) The computer-readable medium of claim 38, wherein said second resource is a
 2 transaction and said first resource is a resource locked for said transaction.

1 40. (New) The computer-readable medium of claim 39, wherein said data that identifies a
 2 second resource includes a transaction id identifying said transaction.

1 41. (New) The computer-readable medium of claim 38, wherein:
 2 said first resource is a data block; and
 3 said blocking condition is based on said data block undergoing a block-split
 4 operation.

1 42. (New) The computer-readable medium of claim 41, wherein said data block is
 2 marked to indicate the data block is undergoing said block split operation.

1 43. (New) The computer-readable medium of claim 38, the one or more sequences of
 2 instructions further including instructions for in response to determining when said

3 blocking condition no longer prevents said lock management system from granting a
4 lock on said first resource, said first requester informing said lock management
5 system that said blocking condition is no longer in effect.

1 44. (New) The computer-readable medium of claim 38, the one or more sequences of
2 instructions further including instructions for said first requester informing said lock
3 management system that said blocking condition is no longer effect by making
4 another request for a lock of said first resource, said request including data
5 specifying that said blocking condition is no longer effect.